This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF THE CLAIMS:

The listing of claims that follows will replace all prior versions, and listing, of claims in this application.

Claims 1-11 (Cancelled)

Claim 12 (Currently Amended) A multilayer structure comprising ~~incorporating~~ γ-aluminum oxide ~~having substantially no re-growth of interfacial oxide, wherein~~ that is characterized by FTIR as having absorption bands at 400 cm^{-1} and 1000 cm^{-1}, an absence of an adsorption band due to O-H stretching vibration of OH and H_2O at 3700-3000 cm^{-1} and an absence of an absorption band at 581 cm^{-1} ~~no hydroxyl absorption is observed in said γ-aluminum oxide by FTIR~~.

Claim 13 (Currently Amended) A multicomponent film comprising ~~incorporating~~ γ-aluminum ~~having substantially no re-growth of interfacial oxide, wherein~~ that is characterized by FTIR as having absorption bands at 400 cm^{-1} and 1000 cm^{-1}, an absence of an adsorption band due to O-H stretching vibration of OH and H_2O at 3700-3000 cm^{-1} and an absence of an absorption band at 581 cm^{-1} ~~no hydroxyl absorption is observed in said γ-aluminum oxide by FTIR~~.

Claim 14 (Currently Amended) An electronic device that contains γ-aluminum oxide ~~having substantially no re-growth of interfacial oxide, wherein~~ that is characterized

by FTIR as having absorption bands at 400 cm^{-1} and 1000 cm^{-1}, an absence of an adsorption band due to O-H stretching vibration of OH and H_2O at 3700-3000 cm^{-1} and an absence of an absorption band at 581 cm^{-1} ~~no hydroxyl absorption is observed in said γ-aluminum oxide by FTIR~~.

Claim 15 (Original) The electronic device of claim 14 selected from the group consisting of a transistor, capacitor, diode, resistor, switch, light emitting diode, laser, wiring structure, and interconnect.

Claim 16 (Currently Amended) A capacitor structure comprising ~~fabricated by sequentially depositing~~ a bottom electrode layer, a dielectric layer and a top electrode layer on a base structure wherein the dielectric layer comprises ~~incorporates γ~~-aluminum oxide ~~having substantially no re-growth of interfacial oxide~~ that is characterized by FTIR as having absorption bands at 400 cm^{-1} and 1000 cm^{-1}, an absence of an adsorption band due to O-H stretching vibration of OH and H_2O at 3700-3000 cm^{-1} and an absence of an absorption band at 581 cm^{-1} ~~and no hydroxyl absorption observed in said γ-aluminum oxide by FTIR~~.

Claim 17 (Original) The capacitor structure of claim 16 wherein the capacitor structure is selected from the group consisting of stack capacitors and trench capacitors.

Claim 18 (Original) The capacitor structure of claim 16 further comprising depositing a dielectric buffer layer over the capacitor structure.

Claim 19 (Currently Amended) The capacitor structure of claim 18 wherein the ~~optional~~ dielectric buffer layer is selected from the group consisting of γ-aluminum oxide and a multilayer structure with γ-aluminum oxide and any insulating material wherein said γ-aluminum oxide ~~has substantially no re-growth of interfacial oxide and~~ is characterized by FTIR as having absorption bands at 400 cm^{-1} and 1000 cm^{-1}, an absence of an adsorption band due to O-H stretching vibration of OH and H_2O at 3700-3000 cm^{-1} and an absence of an absorption band at 581 cm^{-1} ~~no hydroxyl absorption is observed in said γ-aluminum oxide by FTIR~~.

Claim 20 (Previously Presented) The capacitor structure of claim 16 wherein the capacitor structure is connected to underlying circuitry via a plug and an optional conductive barrier.

Claim 21 (Original) The capacitor structure of claim 20 wherein the plug material is selected from the group consisting of polysilicon, W, Mo, Ti, Cr, Cu, and doped or undoped alloys, mixtures or multilayers thereof.

Claim 22 (Original) The structure of claim 20 wherein the conductive barrier is selected from the group consisting of TaN, TaSiN, TiAlN, TiSiN, TaSiN, TaWN, TiWN, TaSiN, TaAlN, NbN, ZrN, TaTiN, TiSiN, TiAlN, IrO_2, SiC, TiPt, TiNPt, TiAlN-Pt, Ru, RuO_2, RuPt, RuO_2, WSi, Ti, TiSi, doped and undoped polysilicon, Al, Pd, Ir, IrO_x, Os, OsO_x, MoSi, TiSi, ReO_2, and doped or undoped alloys, mixtures or multilayers thereof.

Claim 23 (Original) The structure of claim 16 wherein the bottom electrode is selected from the group consisting of conductive materials, polysilicon, Ni, Pd, Pt, Cu, Ag, Au, Ru, Ir, Rh, IrO_x, RuO_x, TaN, TaSiN, Ta, $SrRuO_3$, $LaSrCoO_3$, and doped or undoped alloys, mixtures or multilayers, thereof.

Claim 24 (Currently Amended) The structure of claim 16 wherein the dielectric material is selected from the group consisting of said γ-aluminum oxide and a multilayer structure of said γ-aluminum oxide and any insulating material.

Claim 25 (Original) The structure of claim 16 wherein the top electrode is selected from the group consisting of polysilicon, Ni, Pd, Pt, Cu, Ag, Au, Ru, Ir, Rh,IrO_x, RuO_x, TaN, TaSiN, Ta, $SrRuO_3$, $LaSrCoO_3$, and doped or undoped alloys, mixtures or multilayers thereof.

Claim 26 (Currently Amended) A wiring structure formed by etching trenches and vias into a dielectric layer, patterning the metallization layer, depositing an optional barrier material, and depositing a wiring material, wherein the dielectric layer and/or the optional barrier material comprise ~~incorporate~~ γ-aluminum oxide ~~having substantially no re-growth of interfacial oxide and~~ that is characterized by FTIR as having absorption bands at 400 cm^{-1} and 1000 cm^{-1}, an absence of an adsorption band due to O-H stretching vibration of OH and H_2O at 3700-3000 cm^{-1} and an absence of an absorption band at 581 cm^{-1} ~~no hydroxyl absorption observed in said γ-aluminum oxide by FTIR~~.

Claim 27 (Currently Amended) The structure of claim 26 wherein the dielectric layer is selected from the group consisting of said γ-aluminum oxide and multilayers of said γ-aluminum oxide and SiO_2, SiO_xN_y, Si_3N_4, phosphosilicate glass, metal oxides, doped or undoped alloys, mixtures or multilayers, thereof~~, wherein said γ-aluminum oxide has substantially no re-growth of interfacial oxide and no hydroxyl absorption observed in said γ-aluminum oxide by FTIR~~.

Claim 28 (Currently Amended) The structure of claim 26 wherein the optional barrier material is selected from the group consisting of said γ-aluminum oxide and doped or undoped alloys, mixtures or multilayers, thereof of said γ-aluminum oxide and WN, TiN, TaN, SiO_2, SiO_xN_y, Si_3N_4, phosphosilicate glass, metal oxides~~, wherein γ-aluminum oxide has substantially no regrowth of interfacial oxide and no hydroxyl absorption observed in said γ-aluminum oxide by FTIR~~.

Claim29 (Original) The structure of claim 26 wherein the wiring material is selected from the group consisting of polysilicon, Al, W, Mo, Ti, Cr, Cu and doped or undoped alloys, mixtures or multilayers thereof.

Claim 30 (Currently Amended) A structure comprising a substrate having source and drain regions and a channel region between said source and drain regions; ~~depositing~~ a gate dielectric, aligned to and on top of said channel region; and ~~depositing~~ a gate electrode aligned to and on top of said gate dielectric wherein the gate dielectric comprises ~~incorporates~~ γ-aluminum oxide ~~having substantially no re-growth of interfacial oxide and~~ that is characterized by FTIR as having absorption bands at 400 cm^{-1} and 1000

cm^{-1}, an absence of an adsorption band due to O-H stretching vibration of OH and H_2O at 3700-3000 cm^{-1} and an absence of an absorption band at 581 cm^{-1} ~~no hydroxyl absorption observed in said γ-aluminum by FTIR~~.

Claim 31 (Cancelled)

Claim 32 (Currently Amended) The structure of claim 30 wherein the gate dielectric is selected from the group consisting of said aluminum oxide and doped or undoped alloys, mixtures or multilayers of aluminum oxide and SiO_2, SiO_xN_y, Si_3N_4, BaO, SrO, CaO, Ta_2O_5, TiO_2, ZrO_2, HfO_2, La_2O_3, Y_2O_3, yttrium alumnate, lathnaum alumnate, lanthanum silicate, yttrium silicate, hafnium silicate, zirconium silicate, ~~wherein γ-aluminum oxide has substantially no re-growth of interfacial oxide and no hydroxyl absorption observed in said γ-aluminum oxide by FTIR~~.

Claim 33 (Currently Amended) The structure of claim 30 wherein the gate dielectric is composed of more than one layer and at least one component of at least one of the layers comprising the gate dielectric is said γ-aluminum ~~oxide having substantially no regrowth of interfacial oxide, wherein no hydroxyl absorption is observed in said γ-aluminum oxide by FTIR~~.

Claim 34 (Currently Amended) The structure of claim 30 wherein the multilayer gate dielectric is composed of a lower, middle and optional upper layer wherein at least one layer or one component of a layer of the gate dielectric is said γ-aluminum oxide

~~having substantially no re-growth of interfacial oxide and no hydroxyl absorption observed in said γ-aluminum oxide by FTIR.~~

Claim 35 (Original) The structure of claim 34 wherein the lower layer is selected from the group consisting of SiO_2, SiO_xN_y, Si_3N_4, BaO, SrO, CaO, Ta_2O_5, TiO_2, ZrO_2, HfO_2, Al_2O_3, La_2O_3, Y_2O_3, yttrium alumnate, lathnaum alumnate, lanthanum silicate, yttrium silicate, hafnium silicate, zirconium silicate, and doped or undoped alloys, mixtures or multilayers, thereof.

Claim 36 (Original) The structure of claim 34 wherein the middle layer is selected from the group consisting of SiO_2, SiO_xN_y, BaO, SrO, CaO, Si_3N_4, Ta_2O_5, TiO_2, ZrO_2, HfO_2, Al_2O_3, La_2O_3, Y_2O_3, yttrium alumnate, lathnaum alumnate, lanthanum silicate, yttrium silicate, hafnium silicate, zirconium silicate, and doped or undoped alloys, mixtures or multilayers, thereof.

Claim 37 (Original) The structure of claim 34 wherein the upper layer is selected from the group consisting of SiO_2, SiO_xN_y, Si_3N_4, BaO, SrO, CaO, Ta_2O_5, TiO_2, ZrO_2, HfO_2, Al_2O_3, La_2O_3, Y_2O_3, yttrium alumnate, lathnaum alumnate, lanthanum silicate, yttrium silicate, hafnium silicate, zirconium silicate, and doped or undoped alloys, mixtures or multilayers, thereof.

Claim 38 (Original) The structure of claim 30 wherein the gate electrode is selected from the group consisting of polysilicon, Al, Ag, Bi, Cd, Fe, Ga, Hf, In, Mn, Nb,

Y, Zr, Ni, Pt, Be, Ir, Te, Re, Rh, W, Mo, Cr, Fe, Pd, Au, Rh, Ti, Cr, Cu, and doped or undoped alloys, mixtures or multilayers, thereof.